



## **AGENDA**

### **Twenty-Seventh (27th) Meeting of SENATE of**

### **Indraprastha Institute of Information Technology Delhi**

**Date:**               **20 August, 2014**

**Day:**                   **Wednesday**

**Time:**               **03.00 PM**

**Venue:**               **Senate Room, B-wing, 5<sup>th</sup> Floor,  
R&D Building, IIT-D Campus,  
Okhla Industrial Estate, Phase-III,  
New Delhi-110020**

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## **TWENTY-SEVENTH (27th ) MEETING OF SENATE OF IIT-DELHI** **AGENDA**

### **27.1 Opening remarks of the Chairman.**

### **27.2 Confirmation of minutes of the 26<sup>th</sup> meeting of the Senate held on 25<sup>h</sup> June, 2014.**

The Senate at its 25<sup>th</sup> meeting held on 19.2.2014 vide item No. 25.6 had agreed to the proposal for giving **8 credits** for doing internship in approved Industry/research lab./academic labs of 6 months or more. Subsequently, the Senate at its 26<sup>th</sup> meeting had agreed to another option for **Capstone** project of 4 or 8 credits in lieu of a Scholarly Paper. The students doing scholarly paper of 8 credits are currently allowed to do in two semesters of 4 credits each. Therefore, the students doing **Industry project** should also be allowed to do a project of 4 or 8 credits. In order to maintain uniformity the Director has approved the change of credits of Industry project from **8 credits** to **4 or 8 credits** and the relevant regulation has been modified accordingly.

With the above change the Senate may kindly confirm the minutes of 26<sup>th</sup> meeting as circulated since no other comments have been received so far. A copy of the same is placed as **Annexure-1, P-6**

### **ACTION TAKEN REPORT**

### **27.3 To report the release of the following UG/PG Regulations:**

Based on the decisions taken by the Senate for making changes in the existing regulations as well as approval of new regulations the following regulations have been released after taking input from the UGC/PGC. These regulations are placed on the website at <http://www.iitd.ac.in/education/resources>.

- Regulations for BTech.Programs
- Regulations for MTech./Ph.D. Programs
- Regulations for BTech (CSE)
- Regulations for BTech (ECE)
- Regulations for MTech (CSE)
- Regulations for MTech (ECE)
- Regulations for MTech. in Computational Biology (CB)
- Regulations for Minor in Economics
- Regulations for Minor in Computational Biology(CB)
- Regulations for Dual Degree programs

Senate may kindly consider and approve the above.

#### **27.4 Implementation of Industry/Capstone projects for M.Tech. students**

The Senate at its 25<sup>th</sup> meeting held on 19.2.2014 and 26<sup>th</sup> meeting held on 25<sup>th</sup> June,2014 agreed to the proposals for giving an option to M.Tech. students for doing **internship** in approved Industry/research lab./academic labs or to undertake a **Capstone Project** of 4 or 8 credits in lieu of a Scholarly Paper.

With this, for a scholarly paper option, an MTech student has these options: **regular scholarly paper, industry project, capstone project**. It was agreed that PGC will work out operational details.

Accordingly, the PGC has formulated and recommended the following guidelines for **Industry Project** and **Capstone project** within the M.Tech. program.

##### **For Industrial Projects:**

1. A suitable industrial organisation is identified (by the student, or by the Institute)., along with an appropriate group in the organisation where the project will be conducted.
2. An appropriate employee of the organisation is identified (by the student or the Institute) and approved (by the Institute) to act as a supervisor. It is expected that this Industrial Supervisor will hold some responsible post in the industrial organisation (like that of a Manager, or a Project Head, etc.). There may be an Academic Supervisor at the Institute, although this is not mandatory.
3. The Institute writes to Industrial Supervisor, to confirm that he will be willing to: (a) supervise the student for a project worth either 4 or 8 credits; (b) evaluate the student's performance using an evaluation form provided by the Institute; and (c) sign a project report written by the student, that this confirms that this was work done by the student.
4. Once agreement is reached, then the project can go ahead. The project deliverables are the evaluation form and a project report written by the student. Both deliverables have to be signed by the Industrial Supervisor (and the Academic Supervisor, if there is one).

##### **For the Capstone Project:**

1. Follow the procedures adopted for BTPs, with the variation of allowing multiple supervisors.
2. Projects are envisaged as either: (a) large on-going software projects, requiring team-efforts over several years; or (b) individual software projects requiring the development of software for specific problems.
3. The deliverables will be as with the BTPs.

Director has accepted the above recommendations of the PGC for implementation. The same is placed before the Senate for information.

## **ACADEMIC & STUDENTS MATTERS**

### **27.5 To consider some issues related to Dual Degree Program**

The Senate at its 20<sup>th</sup> meeting held on 17<sup>th</sup> October,2012 had approved a Dual Degree Program, a copy of the Dual Degree regulations is placed at **Annexure-II, P-33** . After implementation of the program in the last two years some queries have been made by the students whether they can leave before completion of M.Tech. part and whether refund of fee will be made etc.etc. In this regard following clarifications are proposed to be made in the regulation for the information of the students:

After Admission

- the student is ineligible for placement
- No refund of fee if he does not join except if he goes for higher studies in which case Rs.5000 is deducted.

If he/she cannot complete the M.Tech - no fee refund can be made

- Completed degree may be given at the Convocation

Senate may kindly consider and approve the above proposal.

### **27.6 To consider a proposal to start the semester officially 3 days earlier, but use the extra 3 days for conducting an intensive 3-day workshop for strengthening the capability of students.**

It is proposed to start the semester officially 3 days earlier, but use the extra 3 days for conducting an intensive 3-day workshop for strengthening the capability of students in some language/ technology /tool which is needed by some regular course(s) in the semester. Details of the proposal and a tentative plan for using these days for students entering different semesters in their program are given at **Annexure-III, P-35**.

Senate may kindly consider and approve the above proposal.

## **ITEMS FOR INFORMATION**

### **27.7 Summary of Grade Changes for Winter 2014.**

The list will be placed on table.

### **27.8 Summary of course registrations for the Monsoon Semester 2014**

Summary of course registration for the Monsoon Semester,2014 will be placed on the table.

### **27.9 List of students likely to graduate in the year 2014.**

The list will be placed on the table

### **27.10 Status of admissions:**

The details will be placed on the table

### **27.11 Approval from AICTE**

We have applied for Approval of AICTE for change of site, two additional PG programs i.e. M.Tech. in Mobile Computing and M.Tech. in ECE (VLSI) and extension of approval of the existing programs for the year 2014-15. The expert committees have visited the permanent campus twice and the approval is still awaited.

### **27.12 Application for NAAC Accreditation**

Action is being taken for collection of data from the concerned departments/Sections/faculty for uploading on the NAAC website.

### **27.13 Application for NBA Accreditation**

Approval from NBA has been received for online submission of e-SAR and the action is being taken for collection of data from the concerned departments/Sections/faculty for uploading on the NBA website.

### **27.14 Joint counseling with DTU and IGDTUW**

Registrar will apprise of the admission process for B.Tech. Programs completed through joint counseling with DTU and IGDTUW.

### **27.15 Writ Petition (C) No. 3858/2014 filed by Mr. Madhur Hasija, Ph.D. student**

Mr. Madhur Hasija had filed Writ Petition (C) No.3026/2014 seeking order for allowing him to continue PhD Programme and payment of scholarship. In the hearing held on 15.5.2014 he withdrew his writ petition with the liberty from the Hon'ble High court to make a request to IITD to change the mentor. Subsequently, he made an application to the Director for change of his Ph.D. mentor. Since his progress in the two reviews were poor, his request was not agreed to. Thereafter he filed another Writ Petition (C) No. 3858/2014 requesting for similar relief. The matter came up for hearing before a Vacation Judge on 4 June 2014. The Hon'ble Delhi High court has allowed him to continue as Ph.D. student till next date of hearing i.e. 3.7.2014. On 3.7.2014, the Counsel of the Petitioner sought time to file rejoinder and the Hon'ble court allowed the same and fixed the next date of hearing as 1<sup>st</sup> October,2014. The interim order for continuation of Mr. Madhur Hasija in the Ph.D. program has been also been extended till the next date of hearing.

**27.16 Starting of M.Tech. program in Computation Biology (CB) deferred**

Against the advertisement for M.Tech(CB) program 19 applications were received and all of them were called for test/interview. Only 7 candidates appeared for the test/interview out of which 4 candidates were selected. Even out of these four, one candidate did not accept the offer. Considering the poor response and totality of the situation it was decided to defer the starting of this new program from academic year 2014. The three candidates who had accepted the offer have been informed of the deferment and their demand drafts have been returned.

**27.17 Recommendation/Report by PGC: Best MTech thesis award (Awaited)**

**27.18 Recommendation / Report by UGC:**

**27.19 Any other item with permission of the Chair**



**Minutes of the 26<sup>th</sup> Senate meeting of IIIT-D held on 25<sup>th</sup> June, 2014 at 02.00 PM in the Senate Room, B-wing, R&D Building, IIIT-D Campus, Okhla Industrial Estate Phase-III, New Delhi**

***Following members were present:***

- |                            |                              |
|----------------------------|------------------------------|
| • Prof. Pankaj Jalote      | - Chairman                   |
| • Prof. K.K. Biswas        | - External Member            |
| • Prof. Dheeraj Sanghi     | - External Member            |
| • Dr. Shreekant Gupta      | - External Member            |
| • Prof. Samaresh Chatterji | - Ex-Officio Internal Member |
| • Prof. Ashwin Srinivasan  | - Ex-Officio Internal Member |
| • Mr. Hemant Kumar         | - Ex-Officio Internal Member |
| • Dr. A.V. Subramanyam     | - Internal Member            |
| • Dr. Angshul Majumdar     | - Internal Member            |
| • Dr. Dong Hoon Chang      | - Internal Member            |
| • Dr. Mohd. S. Hashmi      | - Internal Member            |
| • Dr. Shreemoy Mishra      | - Internal Member            |
| • Dr. Sriram K.            | - Internal Member            |
| • Dr. Sujay Deb            | - Internal Member            |
| • Mr. Dipto Sarkar         | - Student's Representative   |
| • Mr. Ashwani Kumar Kansal | - Secretary                  |

***Following members attended via telecon:***

- Prof. Anshul Kumar
- Mr. Ramesh Hariharan

***Special Invitees:***

- |                              |                            |
|------------------------------|----------------------------|
| • Dr. Subhadip Roy Chaudhuri | - Faculty- IIITD           |
| • Dr. Anubha Gupta           | - Faculty- IIITD           |
| • Dr. Pushpendra Singh       | - Faculty -IIITD           |
| • Dr. Vivek Bohara           | - Faculty –IIITD           |
| • Dr. Rajiv Raman            | - Faculty - IIITD          |
| • Dr. Alexander Fell         | - Faculty – IIITD          |
| • Mr. Prateek Deewan         | - Student's Representative |
| • Ms. Niharika Sachdeva      | - Student's Representative |
| • Mr. Hemanta Kr. Mondal     | - Student's Representative |
| • Mr. Venkatesh Vinayakrao   | - Student's Representative |
| • Mr. Samanth Bhardwaj       | - Student's Representative |
| • Mr. K.P. Singh             | - In-charge -Academics     |
| • Ms. Sheetu Ahuja           | - AM-Academics             |



**TWENTY- SIXTH (26th ) MEETING OF SENATE OF IIT-DELHI**  
**MINUTES OF THE MEETING**  
**(held on 25<sup>th</sup> June, 2014)**

**26.1 Opening remarks of the Chairman.**

The Chairman welcomed all to the meeting. Thereafter, agenda items were taken up for discussions

**26.2 Confirmation of minutes of the 25<sup>th</sup> meeting of the Senate held on 19<sup>th</sup> February,2014.**

Since there were no comments, the minutes of the 25<sup>th</sup> meeting were confirmed

**26.3 Confirmation of minutes of the Special meeting of the Senate held on 28<sup>th</sup> May,2014**

Since there were no comments, the minutes of the Special meeting of the Senate were confirmed

**ACTION TAKEN REPORT**

**26.4 To consider a proposal for incorporating the rules for online registration of courses in the UG and PG regulations**

Chairman, Senate informed the members that based on the decision taken by the Senate regarding online courses (vide minutes of the 18<sup>th</sup> meeting held on 19<sup>th</sup> April, 2012) the following is being added to both UG and PG Regulations:

**Online Courses**

IIT-Delhi has evolved a system for allowing students to take online courses. Students can take advantage of the increasing amount of such courses made available by reputed universities across the world to complement the courses offered in the institute.

Form for online course is available at the following link:

<http://www.iitd.ac.in/sites/default/files/docs/education/online-course-application.pdf>

The Senate noted the above for information and authorized the Chairman, Senate to approve any minor changes to be made while incorporating the rules in the UG/PG regulations.

**26.5 To consider a proposal for modification of PG Regulation 6 (2) regarding change from one program to another and payment of difference of stipend/fee**

Chairman, Senate informed the members that based on the decision taken by the Senate (vide minutes of the 25<sup>th</sup> meeting held on 19<sup>th</sup> February, 2014) the existing PG Regulation 6 (2) regarding change from one program to another and payment of difference of stipend/fee is being modified as under:

‘A PhD student can change his/her program to MTech. If this change is done by a student, he/she will be treated as being in the MTech program from the start of his/her program, and will have to refund the difference in fees and stipend between the PhD and MTech programs, if any. **If a PhD student fails his or her first two reviews, then the PGC may propose either that he or she leaves the institute; or enroll in the MTech program. If the latter, then usually full MTech fees would be payable by the student, along with any differences in stipends. In some cases, the stipend difference may be reduced, waived or deferred on case by case basis.**

**A warning letter will be issued by the Academic Section to students when they fail the first review which should also explain the above.**

The Senate noted for information the above modification.

**ACADEMIC & STUDENTS MATTERS**

**26.6 To re-consider and approve the PhD Degree format**

Chairman, Senate apprised the members of the Ph.D. degree format earlier approved by the Senate at its 25<sup>th</sup> meeting held on 19<sup>th</sup> February, 2014. Subsequently some more samples were received for possible improvement and the same were placed on the table for consideration of the members. After detailed discussions it was decided that no change be made and the format already approved be continued.

**26.7 To consider recommendation of PGC for adoption of LaTeX template for Ph.D. thesis**

Chairman, Senate apprised the members of the recommendation of the PGC and the sample Ph.D. thesis formats placed on the table. After detailed discussions the Senate agreed to adopt the Ph.D. thesis format of IIT Delhi with minor changes. The Chairman, Senate was authorized to approve these changes.

**26.8 (i) To consider a proposal for running a compulsory course of 2 credits in Environmental Studies (EVS), and (ii) Making TCOM a 2-credit course.**

Chairman, Senate apprised the members of the requirement of running a compulsory course in Environmental Studies. It was noted that the Institute is already running two

courses related to Environmental Studies in the UG programs under elective/open category. After detailed deliberations the Senate approved a 2-credit compulsory course in Environmental Studies. The Institute will work out with the Guest faculty to run this course.

It was also agreed that the credits of the TCOM course may be changed to 2, as currently to make the load equivalent to 4 credits, some extra work is “added” – by making it 2 credits, the course can focus sharply on technical writing and making presentations. It was agreed that Chairman, Senate in consultation with Dr. Hemant Kumar will make appropriate changes to the TCOM course contents for this.

It was suggested that the 2 credits “freed” by making TCOM may be used for the ENV course - this will not require any change in the rest of the curriculum.

#### **26.9 To consider a proposal for Enhancing Student Engagement in Academics and Institute**

Chairman, Senate apprised the members of the lack of engagement of many students in academics and other institute activities. He also apprised of the series of steps proposed as a comprehensive response to this situation. After detailed discussions the Senate approved the suggestions made in para 1 and 5 with the stipulation that grade ‘D’ will not be reduced to ‘F’. The Senate also noted for information the steps suggested in paras 2, 3 and 4, as per details at [Appendix-I](#)

#### **26.10 To consider a proposal for Improving Support for Courses for improved Teaching and Learning**

Chairman, Senate informed the members that for strengthening the Teaching and Learning (T&L) in courses, particularly core courses, it is important to have strong support from Tutors and TAs. Without good support, high quality T&L is not feasible. Accordingly, a number of steps are proposed for implementation with effect from Monsoon 2014 as per details given in the [Appendix-II](#). The Senate noted the same for information.

#### **26.11 To consider modification of PG Regulation No.14 (7) regarding issue of Provisional Certificate pending award of actual Degree in a regular Convocation**

Chairman, Senate apprised the members of the existing provision contained in PG Regulation No.14 (7) regarding issue of Provisional Certificate and necessity of making changes in the same. During the course of discussions it was felt that there is no need to wait for approval of the Senate for issuing the provisional certificate. Once a student completes the requirement for award of degree the Dean of Academic Affairs may authorize the Registrar to issue the provisional certificate. After detailed deliberation the Senate approved the modification of the existing regulation No.14 (7) as under:

Upon a satisfactory report from the Dean, Academic Affairs, the Academic Senate may recommend the award of the MTech degree to the student. While pending the actual award of the degree in a regular convocation of the Institute, the Dean of Academic

Affairs may authorize the Registrar to issue a provisional certificate to a student who completes the requirements for graduation.

It was also decided that the above provision may be added in the UG regulation for B.Tech. students

**26.12 To consider the effective date of registration for the Ph.D. students joining in the middle of a Semester**

Chairman, Senate apprised the members of the current practice of joining the program and effective date of academic registration by Ph.D. students. After detailed deliberations it was felt that there is a need to streamline the procedure for more clarity. It was therefore decided that Ph.D. students who join the Institute after the last date of registration i.e. in between the Semesters their effective date of registration for the purpose of academic registration ( course or thesis) will be from commencement of next semester including Summer Semester.

It was noted that for the purpose of payment of fellowship the effective date of registration will be the date of joining whereas for the purpose of review of annual progress the effective date will be from the start of the semester of academic registration. The Academic Section will work out with ERP to fix the problem, if any.

**26.13 To approve the Academic calendar for Summer Term 2014**

The Senate approved the Academic Calendar for Summer Semester 2013-14 placed at **Appendix-III.**

Arising out of discussions the Senate desired to work out to popularize the summer semester.

**26.14 To approve the Academic calendar for Monsoon Semester 2014**

The Senate approved the Academic Calendar for Monsoon 2014 placed at **Appendix-IV.**

**26.15 To consider a proposal for modification of PG Regulation 12(2) b regarding minimum continuing CGPA requirement for Ph.D. program.**

Chairman, Senate apprised the members of the existing PG Regulation 12(2) b. regarding minimum continuing CGPA requirement for Ph.D. program and the need for making it more clear. After detailed deliberations the Senate approved the modification of PG regulation 12 (2) b. as follow:

b. The minimum continuing CGPA is 7.0. If the CGPA falls below this, he/she may be asked to shift to MTech program or leave.

c. If the SGPA in the first semester falls below 7, the student concerned will be issued a warning by Academic Section.

**26.16 To consider a proposal for modification of UG Regulation 3 and PG regulation 4 (4) regarding admission of Non-degree students**

This item was withdrawn.

**26.17 To consider a proposal for modifications of UG Regulation 5.7 and PG Regulation 8.6 regarding Summer term registration**

Chairman, Senate apprised the members of the existing UG Regulation 5.7 and PG Regulation 8.6 regarding Summer term registration and the need for providing more flexibility and clarity therein. After detailed deliberations the Senate approved the modification of the aforesaid UG/PG regulations as follow.

**Revised UG Regulation 5.7**

Registering in the summer term is optional. A student may register for up to 8 credits of courses that are offered during the summer term. **Out of these 8 credits a student may be allowed up to 4 credits for IP/IS/UR/BTP except that students of the graduating batch may be allowed up to 8 credits for these.**

**Revised PG Regulation 8.6**

Registration in the summer term is optional. But if a PG student is doing some academic work, he/she is required to register. A PG student on financial plan of the Institute is expected to remain in the Institute and work during the summer term even if he/she is not registered, though he/she may take vacation as per rules. A student may register for up to **8 credits, of which up to 4 credits may be for thesis work/IS.**

**26.18 Issuing certificates for Continuing Education Programs (CEP)**

Chairman, Senate informed the members that with a view to help generate revenue as well as help in building relationships with industry and government the Institute is now ready to start CEP programs - guidelines for these are being framed separately and will be approved by the FC/Chairman; attendees/delegates of the CEP programs are proposed to be given certificate the format of which will be similar to what IITK/IITD use. After detailed deliberations the Senate agreed to the proposal and authorized the CEP Coordinator of the CEP to approve courses and issue certificate to the attendees/delegates.

**26.19 To consider a proposal for modification of CGPA calculation formula**

Chairman, Senate apprised the members of the existing UG Regulation 6.3 dealing with grading scheme of the Institute and the present practice of calculating CGPA. It was noted that the ERP immediately calculates the CGPA based on new grade of a student who repeats a compulsory (core) course whereas if the student fails in an elective and

does another one the ERP calculates the SGPA as per revised grade but does not calculate the CGPA in that semester. The CGPA in their case is calculated only at the end of the program. Consequently, the student carries lower CGPA till the end of the program even though he/she may have completed/replaced the failed elective in the 2<sup>nd</sup> or 3<sup>rd</sup> Semester. Such students are at disadvantage when they have to appear for placement etc. After detailed deliberations the Senate agreed to the proposal and decided to add the following to the existing regulation:

‘F’ grade shall not be counted in the calculation of CGPA; however, it is counted in the calculation of SGPA.

#### **26.20 To re-discuss the concept and structure of Minor in the Undergraduate Program**

Chairman, Senate informed that due to some typo errors the agenda item No. 26.20 circulated earlier has been replaced by the new one placed on the table. He also apprised the members of the inputs that have come for improving the framework for minor, and explained that, in general, option for minors do not require any additional credits, and suggested that earlier requirement of extra credits be dropped. After detailed deliberations the Senate approved the structure of minor as under:

- A proposal for minor has to be made and approved by the Senate.
- A minor in an <area>, must have at least 12 credits of course work in that <area>, and the total number of credits in the <area> should be no more than 24.

The BTP should not be allowed in a minor area for the time being.

#### **26.21 To consider a proposal for starting Minor in Economics**

Chairman, Senate apprised the members of the proposal for starting Minor in Economics. Thereafter, Dr. Shreemoy Mishra who had initiated the proposal explained the salient features of the proposal and answered the queries made by the members. After detailed deliberations the Senate approved the proposal for Minor in Economics as per **Appendix-V**.

#### **26.22 To consider a proposal for starting minor in Computational Biology**

Chairman, Senate apprised the members of the proposal for starting Minor in Computational Biology. Thereafter, Dr. Sriram K. who had initiated the proposal explained the salient features of the proposal and answered the queries made by the members. After detailed deliberations it was agreed that requirement of BTP in Computational Biology is not necessary for the time being. The Senate, after making this change approved the proposal for Minor in Computational Biology as per **Appendix-VI**.

#### **26.23 To consider recommendation of PGC regarding completion of Comprehensive examination by the Ph.D. students**

Chairman, Senate apprised the members of the existing PG Regulation 15 (7) regarding Comprehensive examination of the Ph.D. students and the following recommendations made by the PG Committee.

“8.5. Students must take the comprehensive exam no later than 5 semesters or after 16 credits of courses. They must present a complete literature survey, research proposal and research plan. If they fail the exam, they are allowed an additional half a semester to retry.”

The alternative of having two milestones instead of one was also discussed. It was noted that there is already an yearly review system where the student presents his/her progress before the monitoring committee. Hence, it was felt that one milestone, as suggested by the PGC, is desirable and be adopted. On the issue of time limit for completion of comprehensive examination the views expressed by the members were at variance.

Prof. Ashwin Srinivasan, Chair, PGC apprised the members about the recommendation of the PGC and answered the queries made by the members. He clarified that a student failing in first yearly review is given six months time for second review. Students' representatives present at the meeting also expressed their views. After detailed deliberations the time limit for completion of comprehensive examination was suggested as follow:

Student with B.Tech. – 2 ½ years

Student with M.Tech. – 2 years

Those who fail in first attempt, will be given another chance

Further, the PGC was requested to look into the time limit for comprehensive for the category of students who have migrated from MTech program at IIIT-D to the PhD program, as they don't fit either of the above categories. The detailed structure of the comprehensive will also be evolved by the PGC.

**26.24 To consider recommendation of the PGC regarding plans for rolling Ph.D. admissions.**

Chairman, Senate apprised the members of the existing practice of rolling admissions and the observations/ recommendations made by the PGC. After deliberations the Senate agreed that this is an operational issue and PGC may proceed with implementing its recommendations.

**26.25 To consider recommendation of the PGC for amendment in the M.Tech. regulation regarding evaluation of Scholarly paper.**

Chairman, Senate apprised the members of the existing PG Regulation 14 (5) regarding M.Tech. Thesis/Scholarly Paper Evaluation Committee and the recommendation of the PG Committee for amendment of PG Regulation 14 (5) and Regulation 14 (6). After detailed deliberations the Senate agreed to the proposal for amendment as under:

**Regulation 14 (5)**

An M.Tech. thesis shall be evaluated by an evaluation committee which shall consist of the supervisor(s) and two other faculty members/examiners.. For a thesis, it is desirable to have one of the committee members from outside the Institute. The committee must be approved by the PG Committee.

The Scholarly paper shall be evaluated by the Supervisor (s).

#### **Regulation 14 (6)**

For the scholarly paper, no defense is required. It will be evaluated and signed by the advisor(s) and the result along with copy of Scholarly paper communicated to the Academic Administration.

Arising out of discussions the PGC was requested to decide the format of the Scholarly paper. The PGC was also requested to discuss whether Scholarly paper should be assigned grade or not.

#### **26.26 To consider a proposal to allow M.Tech. students to undertake a Capstone Project of 4 or 8 credits in lieu of a Scholarly Paper.**

Chairman, Senate informed the members that MTech students have now an option to do MTech with Thesis (16 Credits) or with SP (8 or 4 Credits). Further, they can be given up to 8 credits for doing internship/Industry Project in approved Industry/research lab./academic labs of 6 months or more.

He also informed that it is now proposed another option to allow students to undertake a **Capstone Project** of 4 or 8 credits in lieu of a Scholarly Paper. The projects are usually defined by one or more faculty members who will act as supervisors, but can include supervisors from industry or other academic institutions. Students can undertake to do a project singly or in a team. The deliverables of the project will be clearly specified by the supervisors, as will the grading scheme to be adopted in meeting these deliverables. The grades for members in a team will be decided by the supervisors of the project, based on their assessment of the work done by the members, and the extent to which they have been able to meet the deliverables. Further details of this can be evolved by PGC.

After detailed deliberations the Senate agreed to the above proposal to allow students to undertake a **Capstone Project** of 4 or 8 credits in lieu of a Scholarly Paper. With this, for a scholarly paper option, an MTech student has these options: regular scholarly paper, industry project, capstone project.

#### **26.27 To consider recommendation of UGC regarding revision of requirements for Branch transfer of B.Tech. students from ECE to CSE and vice versa.**

Chairman, Senate apprised the members of the existing provision for Branch transfer. He also informed that after making review of the existing eligibility requirement the UGC has suggested the following revised criteria for branch transfer:



**Requirements for transfer from ECE to CSE:**

a B- or better grade in DSA and IP and no F in the entire first year.

**Requirements for transfer from CSE to ECE:**

a B- or better grade in DC, Math1 and PS (Math2), and no F in the entire first year.

If the number of applications goes beyond the number of available seats, priority can be based on CGPA.

After detailed deliberations the Senate approved the above criteria for **Branch transfer**.

**26.28 To consider the cases of BTech 2010 Batch students who are short of credits for fulfilling the graduation requirements**

Chairman, Senate informed that 7 students of 2010 Batch who are listed in **Appendix-VII** have completed the required credits for award of degree but they fall short of 2-4 credits in CSE courses. The situation has arisen due to change of rule last year which requires 32 credits of CSE courses in the last 4 semesters. In the old rule the students were required to do 2 CSE/Maths courses every semester. All these students have done adequate Maths courses. Hence, it is proposed to consider the Maths courses viz. Algebra, Graph Theory and Number theory as CSE courses to meet the shortfall in these cases. It may be noted that even in the new rule the UGC is authorized to treat a Maths course as CSE course. After detailed deliberations the Senate agreed to the proposal.

**26.29 Recommendations for various Medals/Awards****Chancellor's Gold Medal:**

It was informed that a student with highest CGPA has been identified and the case for award of medal will be processed through a committee as per approved guidelines.

**Best MTech thesis award**

It was informed that the award of medal for best M.Tech. thesis is under process

**Other Awards/Medals**

Dr. Dong Hoon Chang, a member of the committee constituted to recommend various Medals/awards presented the recommendations of the committee. After detailed deliberations the Senate agreed to the following recommendations for award of various medals:

**All Round Performance Medal:**

Recommendation of the committee was accepted. Hence, no medal will be awarded for all round performance this year.

**Best BTP award:  
Engineering Track:**

**Apoorv Narang.** For the project “Backpack” led by him.

**Research Track:**

No award to be given, as the only nominated student did not turn up.

**Entrepreneurship Track:**

**Aditya Kumar** for the project “Ingage” led by him.

**ITEMS FOR INFORMATION**

**26.30 Holding 3<sup>rd</sup> Convocation on 31.08.2014**

The Senate noted the position

**26.31 Contingency grant to Ph.D. scholars based on qualitative level of performance**

Chairman, Senate informed the members of the following policy of the Institute for contingency grant to Ph.D. scholars :

“The policy for contingency grant to Ph.D. scholars needs to be articulated clearly. It has been decided that the Ph.D. students of the Institute will be given Rs.10,000 as contingency grant in the first year. From Second year onwards they will be given contingency grant based on of the “grade” in their yearly review as follow:

|                       |           |
|-----------------------|-----------|
| Excellent             | Rs.20,000 |
| Good                  | Rs.15,000 |
| Average               | Rs.10,000 |
| Below Average or Poor | Rs. 5,000 |

The unutilized contingency grant will be carried forward.”

The Senate noted the above.

**26.32 Schedule/Steps for M.Tech. thesis evaluation and defense**

The Senate noted the Schedule/Steps specified for M.Tech thesis evaluation and defense as per **Appendix-VIII**

**26.33 Admission of Foreign students/NRI through DASA**

Registrar informed that all 10 seats have been filled for admission of foreign students / NRI through DASA from the academic year 2014-15

### **26.34 Approval from AICTE**

Registrar apprised the members of the present status with regard to visit by expert committees and approval process.

### **26.35 Application for NAAC Accreditation**

Registrar apprised the members of the present status with regard to action being taken for collection of data from the concerned departments for uploading on the NAAC website.

### **26.36 Application for NBA Accreditation**

Registrar apprised the members of the present status with regard to action being taken for collection of data from the concerned departments for uploading on the NBA website.

### **26.37 Joint counseling with DTU and IGDTUW**

Registrar apprised the members of the present status with regard to joint counseling with DTU and IGDTUW for admission to B.Tech. programs from the academic year 2014-15

### **26.38 Guidelines for Visiting Students**

The Senate ratified the guidelines for visiting students approved by the Director placed at **Appendix-IX**

### **26.39 Writ Petition (C) No.3026/2014 and Writ Petition (C) No. 3858/2014 filed by Mr. Madhur Hasija, Ph.D. student**

The Senate noted the position.

### **26.40 Admission to Data Engineering specialization put on hold**

The Senate noted the position.

### **26.41 To ratify the decision taken by Chairman Senate for Award of PhD Degree**

The Senate ratified the decision taken by Chairman, Senate for approval of PhD Thesis Defense (Viva Voce) report of Mr Himanshu Sharad Bhatt. The particulars of the student are given below:

| <b>Name</b>           | <b>Roll No.</b> | <b>Title of Thesis</b>                  | <b>Supervisor Names</b>                                   | <b>Reviewer Names</b>  |
|-----------------------|-----------------|---|---|--|
| Himanshu Sharad Bhatt | PhD0904         | Emerging Covariates of Face Recognition | 1. Richa Singh, Supervisor<br>2. Mayank Vatsa, Supervisor | 1. Prof. Kevin Bowyer, University of Notre Dame<br>2. Prof. Sudeep Sarkar, University of South |

|  |  |  |   |   |
|--|--|--|---|---|
|  |  |  | <p>3. Afzel Noore,<br/>External Co-Supervisor</p> <p>4. Nalini K. Ratha,<br/>External Co-Supervisor</p> | <p>Florida, Tampa</p> <p>3. Prof. Bir Bhanu<br/>University of California, USA</p> |
|--|--|--|---|---|

### **Enhancing Student Engagement in Academics and Institute**

Many faculty, and even senior students, are concerned about lack of engagement of many students in academics and other Institute activities. This indifference of students is clearly undesirable and needs to be rectified, otherwise we risk having a culture and environment of cynicism and don't care attitude in the Institute, which not only will hurt the institute, will also come in the way of students' development and achievement of their potential and their development as responsible citizens.

A series of steps is being proposed as a comprehensive response to this situation. These steps are:

1. Compulsory attendance in first two years – we will adhere to the AICTE norms of minimum 75% attendance in the first two years. If a student's attendance is below 75%, his/her grade will be reduced by one except D (i.e. D will not be reduced to F). Authorized leave of absence including medical leave will be allowed up to 25%. [This is the policy followed by IIT Hyderabad. Many other institutions (e.g. DTU) have compulsory attendance].
2. Institute Activities Participation (IAP) by students in first two years. Students will be required to actively participate in various approved group activities in the Institute. These activities will include – sports, student clubs, student senate organized help sessions, etc. Students will be expected to engage in activity of their choice on an average a couple of hours per week in their first two years. A special certificate for “Active Participation in Institute Activities” will be given to students who are active. (Implementation mechanism will be worked out later including suitable reporting from sports officer, Clubs, and SS will be taken for validating active participation.)
3. Student counselling for first year students – A counselling service by senior students for first year students will be started. Help from student council will be taken in identifying Student Mentors from senior batches (through applications, some selection process,...). Current thinking: a team of 2 student Mentors will be assigned some (say 10) 1st year students. The Mentors will meet with their mentees regularly and advise them about course selection, study-play balance, time management, help with issues they are facing in studying/courses, self management, about clubs,...etc. Essentially how to make the most out of the life in IIT-D. The mentors will also be "sensitized" to a few psychological issues, so they can direct the students towards the counsellor, if they spot some students in need of such help. There will be a faculty member who will be adviser/mentor of this Counselling service. Details of operation of this service will evolve/change.
4. Induction program for incoming students. An induction program for incoming students to help them transition from school to college will be started. This is envisaged to be a residential program, which will include activities, group activities, lectures, sports, etc – the only academics related activity will be “programming familiarization program” for those who are novices in programming. A detailed program is being worked out, which will take help from external professional sources also.
5. End of semester course feedback. Course feedback is an extremely important element in the Teaching and Learning setup. Currently insufficient feedback is coming from students. To encourage more feedback, it is proposed that if a student does not submit 75% of his/her course feedback, his access to ERP be blocked for about 2 weeks, essentially delaying delivery of grades to him/he by that period. [This approach is similar to what IIT-Delhi follows. ]

## **Improving Support for Courses for improved Teaching and Learning**

For strengthening the Teaching and Learning (T&L) in courses, particularly core courses, it is important to have strong support from Tutors and TAs. Without good support, high quality T&L is not feasible. Currently, tutors and TAs seem to take their task too lightly/casually, and do not even make a serious attempt to do a proper job (besides having insufficient background.) The following steps will be implemented from Monsoon, 2014, to help improve this situation.

1. Highest priority for assigning TAs will be to core courses – 1<sup>st</sup> year followed by 2<sup>nd</sup> year, and instructors of these courses may also request specific TAs.
2. The first year CS/EE/Math courses which have tutorials will be assigned tutors who are Phd students. They will be given senior BTech students for helping in lab and providing help to students, and assigned some MTech students for other work like grading assignments, maintaining grades, website, etc. Those MTech students who are good in programming may be assigned to IP/DSA, and students who are good in circuits may be assigned DC/CO.

Action to be taken: (1) Processes for identifying UG TAs to be executed each semester; (2) DOAA to suitably modify the TA and Tutor allocation algorithm – prepare a note on this for inputs. (3) DOAA to prepare a small table for core courses, listing the number of TAs of different categories, and their desired skills/capabilities (this can help in allocating most suitable TAs).

3. Tutors, 2<sup>nd</sup> year MTech student TAs, and UG TAs will be assigned well in advance, and they will be required to meet the Instructor well in advance, and be present for preparation at least one week before the start of classes. Initial assignment will try to minimize/eliminate scheduling conflicts – after the assignment a Tutor/TA may not be permitted to add courses that conflict with their TA work.

Action to be taken: (1) DOAA to allocate TAs early (can specify the timeline in the note also), (2) Message to existing TAs and incoming TAs.

Besides the above actions which the Institute/Academic Section has to take, the following will be some of the rules for TAs/Tutors:

1. Like all employees of the Institute, all students on TAship (including GATE) will be required to record attendance. When not coming to campus, they will have to take leave, like any employee.
2. All PG students assigned as tutors will have to attend lectures of the course to which they are assigned.
3. TAs will be required to do the assignments/labs before the scheduled lab in which the students are to do it. This is the only way they can be prepared to help the students. They will be required to attend the lectures the Instructor asks (can be excused if there are conflicts).
4. Mid-sem feedback to be given to TAs by instructors using the template for TA grading – this will help them improve during the semester itself.
5. As has been agreed, TA grade will be reported in the grade sheet. So, if a TA gets a Unsatisfactory in TA work, this will get reported in his/her grade card.

Action to be taken: (1) Students to be notified; (2) Acad section to build methods of taking attendance and leave handling, (3) Academic section to prepare a note on “Rules and Guidelines for TAs”, which will be given to all PG students and faculty.

**Semester Schedule for Summer Term 2013-14**

| Sl. No. | Event                              | Date                        | Day                         |
|---------|------------------------------------|-----------------------------|-----------------------------|
| 1       | Last date for Registration         | May 13, 2014                | Tuesday                     |
| 2       | Commencement of classes            | May 14, 2014                | Wednesday                   |
| 3       | Last Date for Course Drop          | May 19, 2014                | Monday                      |
| 4       | Mid-Semester Examination           | To be decided by Instructor | To be decided by Instructor |
| 5       | Last date for Late Drop            | June 13, 2014               | Friday                      |
| 6       | Last teaching day                  | July 11, 2014               | Friday                      |
| 7       | End –Sem. Examination              | July 14-17, 2014            | Monday-Thursday             |
| 8       | Moderation meeting                 | July 21, 2014               | Monday                      |
| 9       | Grades to reach UG/PG Section      | July 22, 2014               | Tuesday                     |
| 10      | Verification of Grades             | July 23, 2014               | Wednesday                   |
| 11      | Announcement of Grades (tentative) | July 25, 2014               | Friday                      |

| ACADEMIC CALENDAR                                |     |     |                 |                     |     |   |     |     |                         |          |        |   |            |            |                     |                    |          |   |                        |     |      |                |                  |  |  |  |  |
|--|-----|-----|-----------------|---------------------|-----|---|-----|-----|-------------------------|----------|--------|---|------------|------------|---------------------|--------------------|----------|---|------------------------|-----|------|----------------|------------------|--|--|--|--|
| (MONSOON SEMESTER 2014 w.e.f. 04th August, 2014) |     |     |                 |                     |     |   |     |     |                         |          |        |   |            |            |                     |                    |          |   |                        |     |      |                |                  |  |  |  |  |
| Week 0 (July-August)                             |     |     |                 |                     |     | Week 1 (August)                               |     |     |                         |          |        | Week 2 (August)                                 |            |            |                     |                    |          | Week 3 (August)                         |                        |     |      |                |                  |  |  |  |  |
| Mon  | Tue | Wed | Thur            | Fri                 | Sat | Mon   | Tue | Wed | Thur                    | Fri      | Sat    | Mon   | Tue        | Wed        | Thur                | Fri                | Sat      | Mon                                     | Tue                    | Wed | Thur | Fri            | Sat              |  |  |  |  |
| 28   | 29  | 30  | 31              | 1                   | 2   | 4   | 5   | 6   | 7                       | 8        | 9      | 11  | 12         | 13         | 14                  | 15                 | 16       | 18                                      | 19                     | 20  | 21   | 22             | 23               |  |  |  |  |
|  |     |     | Semester Begins |                     |     | 1st Day of Class                              |     |     | Last day for Late Regn. |          |        | Last day for course Add/Drop                    |            |            |                     | Independence day   |          | Janmashtami                             |                        |     |      |                | ESYA             |  |  |  |  |
|  |     |     |                 |                     |     |   |     |     |                         |          |        |   |            |            |                     | GH                 |          | GH                                      |                        |     |      |                |                  |  |  |  |  |
| Week 4 (August)                                  |     |     |                 |                     |     | Week 5 (September)                            |     |     |                         |          |        | Week 6 (September)                              |            |            |                     |                    |          | Week 7 (September)                      |                        |     |      |                |                  |  |  |  |  |
| Mon  | Tue | Wed | Thur            | Fri                 | Sat | Mon   | Tue | Wed | Thur                    | Fri      | Sat    | Mon   | Tue        | Wed        | Thur                | Fri                | Sat      | Mon                                     | Tue                    | Wed | Thur | Fri            | Sat              |  |  |  |  |
| 25   | 26  | 27  | 28              | 29                  | 30  | 1   | 2   | 3   | 4                       | 5        | 6      | 8   | 9          | 10         | 11                  | 12                 | 13       | 15                                      | 16                     | 17  | 18   | 19             | 20               |  |  |  |  |
|  |     |     |                 |                     |     |   |     |     |                         |          | TT-MON |   |            |            |                     |                    |          |   |                        |     |      |                |                  |  |  |  |  |
| Week 8 (September)                               |     |     |                 |                     |     | Week 9 (September-October)                    |     |     |                         |          |        | Week 10 (October)                               |            |            |                     |                    |          | Week 11 (October)                       |                        |     |      |                |                  |  |  |  |  |
| Mon  | Tue | Wed | Thur            | Fri                 | Sat | Mon   | Tue | Wed | Thur                    | Fri      | Sat    | Mon   | Tue        | Wed        | Thur                | Fri                | Sat      | Mon                                     | Tue                    | Wed | Thur | Fri            | Sat              |  |  |  |  |
| 22   | 23  | 24  | 25              | 26                  | 27  | 29  | 30  | 1   | 2                       | 3        | 4      | 6   | 7          | 8          | 9                   | 10                 | 11       | 13                                      | 14                     | 15  | 16   | 17             | 18               |  |  |  |  |
| Mid-Sem Examinations Week                        |     |     |                 |                     |     |   |     |     | Gandhi Jayanti          | Dussehra |        | Bakrid  |            | Dropped GH |                     |                    | TT-THURS |   |                        |     |      |                |                  |  |  |  |  |
|  |     |     |                 |                     |     |   |     |     | GH                      | GH       |        | GH  |            | TT-FRI     |                     |                    |          |   |                        |     |      |                |                  |  |  |  |  |
| Week 12 (October)                                |     |     |                 |                     |     | Week 13 (October-November)                    |     |     |                         |          |        | Week 14 (November)                              |            |            |                     |                    |          | Week 15 (November)                      |                        |     |      |                |                  |  |  |  |  |
| Mon  | Tue | Wed | Thur            | Fri                 | Sat | Mon   | Tue | Wed | Thur                    | Fri      | Sat    | Mon   | Tue        | Wed        | Thur                | Fri                | Sat      | Mon                                     | Tue                    | Wed | Thur | Fri            | Sat              |  |  |  |  |
| 20   | 21  | 22  | 23              | 24                  | 25  | 27  | 28  | 29  | 30                      | 31       | 1      | 3   | 4          | 5          | 6                   | 7                  | 8        | 10                                      | 11                     | 12  | 13   | 14             | 15               |  |  |  |  |
| Diwali Break                                     |     |     |                 |                     |     |   |     |     |                         |          |        |   | Dropped GH |            | Guru Nanak Birthday |                    |          |   |                        |     |      | BTP Submission | BTP Presentation |  |  |  |  |
|  |     |     | Diwali          |                     |     |   |     |     |                         |          |        | TT-FRI  |            | GH         |                     |                    |          |   |                        |     |      |                |                  |  |  |  |  |
| Week 16 (November)                               |     |     |                 |                     |     | Week 17 (November)                            |     |     |                         |          |        | Week 18 (December)                              |            |            |                     |                    |          | Week 19 (December)                      |                        |     |      |                |                  |  |  |  |  |
| Mon  | Tue | Wed | Thur            | Fri                 | Sat | Mon   | Tue | Wed | Thur                    | Fri      | Sat    | Mon   | Tue        | Wed        | Thur                | Fri                | Sat      | Mon                                     | Tue                    | Wed | Thur | Fri            | Sat              |  |  |  |  |
| 17   | 18  | 19  | 20              | 21                  | 22  | 24  | 25  | 26  | 27                      | 28       | 29     | 1   | 2          | 3          | 4                   | 5                  | 6        | 8                                       | 9                      | 10  | 11   | 12             | 13               |  |  |  |  |
|  |     |     |                 | Last Day of Classes |     | End-Sem Examinations/Labs/Demos/Projects      |     |     |                         |          |        |   |            |            |                     | Moderation Meeting |          | Announcement of Grades (Tentative)      | Winter Vacation starts |     |      |                |                  |  |  |  |  |
|  |     |     |                 |                     |     | Pre-registration of courses for next semester |     |     |                         |          |        |   |            |            |                     |                    |          |   |                        |     |      |                |                  |  |  |  |  |
| TT: Adjusted Days                                |     |     |                 |                     |     | GH: Gazetted Holidays                         |     |     |                         |          |        |   |            |            |                     |                    |          |   |                        |     |      |                |                  |  |  |  |  |
| 06-Sep (Sat): MONDAY's Time Table                |     |     |                 |                     |     | 15-Aug: Independence Day (Friday)             |     |     |                         |          |        | 6-Oct: Eid-ul-Zuha (Bakrid) (Monday)            |            |            |                     |                    |          | 4-Nov: Muharram (Tuesday)               |                        |     |      |                |                  |  |  |  |  |
| 08-Oct (Wed): FRIDAY's Time Table                |     |     |                 |                     |     | 18-Aug: Janmashtmi(Monday)                    |     |     |                         |          |        | 8-Oct: Maharishi Valmiki's Birthday (Wednesday) |            |            |                     |                    |          | 6-Nov: Guru Nanak's Birthday (Thursday) |                        |     |      |                |                  |  |  |  |  |
| 11-Oct (Sat): THURSDAY's Time Table              |     |     |                 |                     |     | 2-Oct: Gandhi Jayanti(Thursday)               |     |     |                         |          |        | 23-Oct: Diwali (Thursday)                       |            |            |                     |                    |          | * ESYA: Tech. Fest of IIITD             |                        |     |      |                |                  |  |  |  |  |
| 04-Nov (Tue): FRIDAY's Time Table                |     |     |                 |                     |     | 3-Oct: Dussehra (Friday)                      |     |     |                         |          |        |   |            |            |                     |                    |          |   |                        |     |      |                |                  |  |  |  |  |



### **Economics Minor at IIT Delhi**

**Minor Program:** A BTech student can earn a minor certification in economics by completing 16 credits of regular courses, and a further 4 credits through additional coursework, independent study (IS), undergraduate research (UR), or independent project (IP), for a cumulative 20 credits in economics. The program is intended to be complementary to CSE/ECE, and emphasizes microeconomics, game theory, and data analysis. Students interested in topics not covered, *e.g.*, environmental or health economics may do so through Independent Study or credit transfer.

**Faculty:** Asst. Prof. Saptarshi Mukherjee (PhD, Economics, Indian Statistical Institute, New Delhi) and Asst. Prof. Shreemoy Mishra (PhD, Economics, University of Texas at Austin).

**Courses:** All courses are for 4 credits and require 3<sup>rd</sup> year standing or higher.

1. *Introduction to Economic Analysis (IEA)*: Foundation course consisting of two parts microeconomic theory and one part macroeconomics (**open to 2<sup>nd</sup> year**).
2. *Applied Econometric Analysis (AEA)*: Foundation course in multiple regression analysis, the pervasive empirical tool in applied economics.
3. *Game Theory (GT)*: Foundation course in game theory, the pervasive tool for strategic analysis in economics. (Pending formal approval).
4. *Economics of Information and IT (EIIT)*: This is a course in applications of cooperative and non-cooperative game theory in the context of markets with imperfect competition.
5. *Network Economics (NWE)*: A comprehensive introduction to social and economic networks, drawing on the latest findings in economics, sociology, computer science, physics, and mathematics. (Pending formal approval).

**Core Courses:** *Introduction to Economic Analysis* is mandatory for the minor. Students must also take *at least* one of *Applied Econometric Analysis* or *Game Theory*.

**Advanced Courses (ADV):** These will vary from year to year. Potential topics include: *Mechanism Design and Auction Theory*, *Social Choice Theory*, *Behavioral Economics*, *Microeconomics of Banking*, and *Advanced Econometrics*.

**Management Science:** A maximum of two management science courses (FIN/MAN) can be counted towards the economics minor. Planned offerings (by guest faculty) are: *Corporate Finance*, *Financial Markets and Investment*, and *Supply Chain Management*.

**Benchmarking:** Economics-minor programs at North American and Indian universities typically require six courses in economics, including *Probability and Statistics*, which all BTech students take in 1<sup>st</sup> year. Thus, the proposed 20-credit program is quite standard.

**Sequencing:** Recommended sequence (in bold).

| <b>Year</b> | <b>Fall / Monsoon</b>                     | <b>Spring / Winter</b>                      |
|-------------|---|---|
| 2           | <b>IEA</b>                                | -   |
| 3           | <b>GT, IEA, EIIT, FIN/MAN</b>             | <b>(AEA or NWE) &amp; FIN/MAN, ADV</b>      |
| 4           | <b>EIIT or IP/UR/IS, IEA, GT, FIN/MAN</b> | <b>(ADV or NWE), AEA, FIN/MAN, IP/UR/IS</b> |

### **Minor in Computational Biology**

The genomic revolution in biology enables one to answer many questions in medical sciences like personalized medicine, the etiology of diseases like cancer, HIV, etc. But the answers to these questions are impossible without a support of powerful computational and statistical tools that helps to understand and uncover the underlying network design principles responsible for these diseases. With the advent of new biotechnological techniques massive amounts of genomics data are generated at a rapid pace from the experiments and the analysis of these data requires tremendous amount of domain knowledge, solid computational background and strong programming skills. The entry cost of this highly interdisciplinary field consists of a good amount of understanding of molecular biology, genomics, algorithms, programming, statistical computation, machine learning, stochastic processes, and other mathematical techniques that underlie biological design principles. Therefore it is imperative to stitch biology, statistics, algorithms and mathematical models to analyze and interpret large scale genomic and biological data. IIT-Delhi is starting a focused MTech program in computational biology.

As computational Biology is an interdisciplinary area, it is well suited for a minor for interested students from computer science and electronics background who wish to make a foray in computational biology. Hence, it is proposed that a minor be offered to the BTech students. The courses for the Minor will mostly be the courses that are offered to MTech students.

Requirements for a Minor in Computational Biology for a BTech students are:

- A student must complete 16 credits (4 courses) from the core courses of the MTech(CB) program. In addition, a student must do 4 credit of IS/IP/UR in Computational Biology
- All other requirements for BTech (in CSE or ECE) must be satisfied.

**Appendix-VII**

| <b>List of Btech 2010 Batch students who are short of Graduation Requirements</b> |                 |                 |   |   |
|---|-----------------|-----------------|---|---|
| <b>S.No.</b>  | <b>Roll No.</b> | <b>Name</b>     | <b>Remarks</b>  | <b>Remarks</b>                            |
| 1   | 2009002         | Aarti Chand     | Short of 2 credits. Registered for 2 credits of Online Course in Summer 2014. Not satisfying graduation requirement under any clause. | Has done Algebra Course                   |
| 2   | 2010003         | Abhishek Sharma | He is not satisfying graduation requirement under any of the clause   | Has done Graph Theory Course              |
| 3   | 2010005         | Aditi Lal       | Short of 2 credits. Registered for 2 credits of IP in Summer 2014. Not satisfying graduation requirement under any clause.            | Has done Algebra Course                   |
| 4   | 2010032         | Jahnvi Kalyani  | Short of 2 credits. Registered for 2 credits of IP in Summer 2014. Not satisfying graduation requirement under any clause.            | Has done Algebra Course                   |
| 5   | 2010036         | Karan Khurana   | Not satisfying graduation requirement under any clause. Did external BTP in last semester   | Has done Graph Theory Course              |
| 6   | 2010066         | Purujit Negi    | Short of 2 Credits. Registered for 2 credits of IP in Summer 2014. Not satisfying graduation requirement under any clause.            | Has done Algebra Course                   |
| 7   | 2010090         | Tanya Mishra    | She is not satisfying graduation requirements under any clause  | Has done Algebra and Number Theory Course |

## **Appendix VIII**

### **M.Tech Thesis Evaluation Process**

1. On completion of assigned project work student will submit the Thesis (Softcopy) as per prescribed format (Latex) to the supervisor for evaluation.
2. Supervisor will verify the Thesis, and when the supervisor is satisfied, he/she will proceed with the next step.
3. The supervisor will identify and fix the Examiners (both Internal and External, if any) for evaluation and get their concurrence. The adviser will also send the thesis to the examiners. It will be good if tentative date is also fixed. Examiners should be given at least one week for examining the thesis before the defense is held.
4. The supervisor will fill a Google Form ([M.Tech Thesis Evaluation Request Form](#)) for planning the defense. (The response of the Google form will be shared with the faculty as a shared google spreadsheet).
5. Academic Sections will work out all logistics for holding the defense, including: invite the examiners for Thesis Defense, fix the date and time, arrange for webex/telecom as needed, TA/DA for the external examiner, etc.
6. Academic section will inform the student, supervisor(s), and examiners about the date and time and location of the thesis defense as soon as possible. Academic section will also announce the holding of the defense.
7. On the day of Thesis defense Academic Section will look after all arrangements before the defense starts, and will provide the Thesis evaluation form, arrange the honorarium & TA for examiner, arrange for tea/coffee, etc.
8. When the defense is concluded, the supervisor(s) will get the **MTech thesis defense Evaluation form** signed by the evaluation committee. If the external examiner has joined on webex/telecom, then he/she should be sent the soft copy of the form, and an email confirmation from him/her about his/her recommendation should be obtained. A hard copy of this email response should be attached to this form. The completed form will be submitted to the Academic Section by the supervisor(s).
9. After the defense, the student will make the recommended changes, get the certificate signed by the supervisor, and submit one hard bound copy of the final thesis (including the signed certificate of the adviser(s)), and the soft copy, to the Academic Section. This completes the process.
10. The students are expected to complete their MTech Thesis defense in May, August or December. The corresponding milestone dates are as follows:

| No | Events  | Graduation Dates |         |        |
|----|---|------------------|---------|--------|
|    |   | May 21           | Aug 21  | Dec 21 |
| 1  | Submission of Thesis to Supervisor by student | April 15         | June 25 | Nov 21 |
| 2  | Submission of Google Form by Supervisor       | April 25         | July 05 | Nov 25 |
| 3  | Thesis Defense                                | May 21           | July 30 | Dec 21 |
| 4  | Submission of final thesis                    | May 24           | Aug 03  | Dec 24 |

### **Student Responsibility:**

1. The student seeking to defend his/her Thesis should ensure that he/she has completed the entire course requirement before submitting the Thesis to supervisor.
2. As faculty members are busy with various responsibilities, it is the responsibility of students to keep track of his/her thesis.
3. After the defense, the student will make the recommended changes, get the certificate signed by the supervisor, and submit one hard bound copy of the final thesis (including the signed certificate of the adviser(s)), and the soft copy, to the Academic Section.

### **Thesis Format**

- M.Tech Thesis should be written in the LATEX format.
- The Front cover Page should contain read as follows:-

**TITLE of THESIS**

**BY**

**Name of Author**

**SUBMITTED**

**in partial fulfillment of the requirement of the Degree of**

**MASTER OF TECHNOLOGY**

**to**



**Indraprastha Institute of Information Technology Delhi**

**Under the guidance of**

**Supervisor Name**



**M.Tech. Thesis evaluation /defense form**

Name of the student: \_\_\_\_\_ Roll No: \_\_\_\_\_

M.Tech. Specialization: \_\_\_\_\_

Date of Thesis Submission: \_\_\_\_\_ Date of Thesis Defense: \_\_\_\_\_

Thesis Title:

**Thesis Evaluation Committee**

1. Supervisor \_\_\_\_\_

2. Internal Examiner \_\_\_\_\_

3. Internal/External Examiner \_\_\_\_\_

**Recommendation of the Committee:**

- Accepted       Rejected       Accepted with major modifications  
(Specific suggestions or changes needed)

Whether the Thesis is recommended for best M.Tech Thesis Award?

Yes

No

If yes, write a few lines in support of your recommendation. \_\_\_\_\_

\_\_\_\_\_  
**Supervisor**

\_\_\_\_\_  
**Internal Examiner**

\_\_\_\_\_  
**External/Internal**

**Examiner**

\_\_\_\_\_  
**Approval of the PGC Chair**

**Date:**

\_\_\_\_\_  
**PGC**

**Chair**

**Rules for Non-Degree Visiting Students Registration**

Non-degree visiting students would be governed by the following rules and regulations:

1. A Non-degree Visiting Student is a student registered for a degree in a recognized Institute/University in India or abroad who has official permission from that Institute/University to attend classes, to carry out research or to avail himself of laboratory or other academic facilities at IIT Delhi for a period not exceeding six months. In the case of a student who is not Indian National or Indian citizen, he/she will not be allowed to register for the course without valid passport and proper visa.
2. The Academic Section or the Department may receive such official requests for the provision of Institute facilities and admit such a visiting student on a case to case basis after due sanction from the DOAA.
3. After Dean's approval, the sponsoring Institute concerned may be informed of this decision and the office given the necessary instructions for temporary registration of the student. The visiting students admitted for the UG/PG courses/projects at the Institute will be charged fees on pro-rata basis as under:  
**Indian national:** (i) Fee of Rs.3500/- per credit. A project of 6 months duration will be considered equivalent to 12 credits. The fee for a 6 months project will be charged Rs.42,000/- (to be charged on pro-rata basis); (ii) Security Rs.5000/- (refundable).  
**Foreign national:** Self-financed foreign national registered as a Visiting Student will be required to pay US\$ 1000 for a semester. In case registration is required for a shorter duration, the fee would be adjusted on pro-rata basis.
4. All visiting students attending courses must appear in all the tests as per the norms for regular students and also submit all class assignments. He/She will be required to go through the same rigor in the course as any regular student of IITD.
5. In case the student is later admitted as a regular student in a PG program, he/she may apply for transfer of credits, which can be considered by PGC in the usual way.
6. The student so admitted must be governed by the Institute rules and regulations as pertaining to regular Institute students of his/her academic level, with the exception that it should not be obligatory on the part of the student to reside in the Institute.
7. If a visiting student desires hostel and messing facilities of IIT Delhi, he/she must get written approval of the Dean of Students who will give necessary instructions for his/her admission to the hostel. In the event the student concerned resides in a hostel, he/she would be required to pay hostel accommodation charges and other hostel charges as applicable to Institute students of corresponding level.
8. The Institute will not be liable for any damages on account of any injuries/loss sustained by such candidates during their course work at the Institute. Therefore, he/she should have insurance coverage for the period he/she stays at the Institute.
9. The students coming to IIT Delhi to carry out research or to avail academic facilities at the Institute under the various agreements entered into with Universities/Institutions, will be considered as exchange students. In the event the provision with regard to the terms & conditions of such exchange students as laid down in the respective Memorandum of Understanding vary with the provisions in Institute Rules on 'provision of facilities to non-degree visiting students', the provisions in the Memorandum of Understanding will have over-riding effect.

## APPLICATION FORM FOR NON-DEGREE VISITING STUDENT

(For Students Registered for Degree Programs in Other Universities)

|     |   |        |
|-----|---|--------|
| 1.  | Name of applicant   |        |
| 2.  | Date of birth   |        |
| 3.  | Male/Female   |        |
| 4.  | Nationality   |        |
| 5.  | Passport Number<br>(if foreign national)  |        |
| 6.  | E-mail  |        |
| 7.  | Mobile No.  |        |
| 8.  | Program currently Registered  |        |
| 9.  | Name of University  |        |
| 10. | Contact postal Address  |        |
| 11. | Details of course(s)/Project to be done at IIT Delhi  |        |
| 12. | Start date and duration of visiting student registration<br>(Limited to a max. of 6 months) |        |
| 13. | Request letter from Institution enclosed (required)   | YES/NO |

Candidate's Signature and date:

|     |   |  |
|-----|---|--|
| 14. | Name of Faculty Guide/Supervisor of IIT-D, if identified. |  |
|-----|---|--|

**Indian national:** (i) Fee of Rs.3500/- per credit. A project of 6 months duration will be considered equivalent to 12 credits. The fee for a 6 months project will be charged Rs.42,000/- (to be charged on pro-rata basis); (ii) Security Rs.5000/- (refundable).

**Foreign national:** Self-financed foreign national registered as a Visiting Student will be required to pay US\$ 1000 for a semester. In case registration is required for a shorter duration, the fee would be adjusted on pro-rata basis.

Payment can be made by Demand Draft drawn in favor of '**IIT Delhi Collection Account**' payable at **Delhi**.

For Office Use Only

|     |  |                              |            |
|-----|--|------------------------------|------------|
| 15. | Candidate's Roll No. _____                   | UG/PG-VISITING STUDENT/_____ |            |
| 16. | Academic Incharge                            | Checked<br><br>AM(Academic)  |            |
| 17. | Dean's Approval                              | YES/NO                       | Signature: |
|     |  |                              | Date:      |
| 18. | Payment Details<br>Fee:<br>Security Deposit: | D.D. No. _____ Date : _____  |            |



## **Regulations for the Dual Degree Program in Computer Science and Engineering (CSE) and Electronics & Communications Engineering (ECE)**

### **1. Preamble**

Dual degree programs are common in India and most IITs have it. The main motive behind such a program is to have some of the UG students of an Institute do their MTech in the same Institute, so the Institute can leverage the training it had provided and the seamless transition into the MTech program to benefit its research activity, as well as reduce the duration for earning the MTech degree. Most dual degree programs allow for both degrees to be earned in five years. IIIT-D's dual degree program follows a similar approach as many other Institutions.

### **2. Admission and Requirements**

- 2.1 A student may opt for migrating to the dual degree program anytime before the add/drop date of his/her 7th semester in the BTech program. Only students with CGPA of 7.0 or above at the time of applying are eligible for the program.
- 2.2 Application process for dual degree will be as defined. Selection will be done as defined.
- 2.3 Any extra course credits earned during the BTech program beyond what is required for the BTech degree, up to a maximum of 12 credits, may be counted towards course credit requirements for the MTech degree. So, a student can do extra courses in 3rd and 4th year (as Honors students do), and get these credits counted towards satisfying the MTech course credit requirements, provided the courses are such that they can be counted for MTech.
- 2.4 As the student have undergone the BTech program of IIIT-D and so has the necessary background and strength in foundations, up to 12 credits of core course requirement of the MTech program, which is designed to impart some core knowledge to students, is deemed to be satisfied, and the same is waived for the dual degree students for earning their MTech.
- 2.5 A dual degree student will be considered as a BTech student till the time he/she completes the requirements for the same; thereafter he/she will be considered as an MTech student. The date for each degree will be based on the date of completing the requirements for that degree.
- 2.6 The dual degree student must spend at least two semesters as an MTech student.

- 2.7 A dual degree student must do an MTech thesis, which may be a continuation of the work done in BTP.
- 2.8 If the specialization requirements are met, then the dual degree student can apply for specialization as well.

### **3. Notes**

- 3.1 The fee for the MTech portion of the dual degree program will be half of regular MTech Fee.
- 3.2 The dual degree student will not be eligible for campus placement in his/her BTech portion, and will be eligible only in his/her last year to use placement services.
- 3.3 If a student does 12 credits extra in 3rd/4th years, as allowed, he/she will have to do 8 credits more in the 5th year, and at least 16 credits of MTech thesis, for the MTech degree. The minimum number of credits for M.Tech.part under Dual Degree program is 36.
- 3.4 After declaration of 8th semester results the student should specify which courses should count for B.Tech. and which for the M.Tech. degree.
- 3.5 Students should be encouraged to take GATE in their 4th year to benefit from the scheme.

### **Change History:**

**July, 2014:** It is clarified that:

- (i) The dual degree program is for both CSE and ECE
- (ii) A student can opt for BTech (Honors) – i.e. clause that Honors cannot be done is removed.
- (iii) If the specialization requirements are met, then the dual degree student can apply for specialization as well.

## **Starting the Semester a few days earlier (while keeping the main Course Instruction as is)**

Most of our courses, as in most good programs, focus on the subject matter, rather than technologies and tools. While our courses do not “teach” tools and technologies, these tools/ technologies are needed and used for doing assignment/projects in various courses, and students are expected to learn them on their own. However, we notice many students often struggle with some tools/technologies/ languages, which hampers the teaching and learning process in some key course(s). A good example of this is DSA in 2<sup>nd</sup> semester – students struggle in C, making the task of the Instructor and students for achieving the post conditions harder.

It is proposed to start the semester officially 3 days earlier, but use the extra 3 days for conducting an intensive 3-day workshop for strengthening the capability of students in some language/ technology /tool which is needed by some regular course(s) in the semester. As the regular courses have not started yet, the entire time for the 3 days will focus on strengthening the capabilities in technology / tools. With this intensive, focussed approach, good outcome can be achieved for the specific language/tool. For example, for the second semester, these 3 days will be used for conducting workshop for improving the proficiency in “C language” – so students are better prepared in it and their learning in DSA is better. (This duration of 3 days can be increased, if experience indicates that 3 days is insufficient.)

As these intensive modules often will help in some course, performance in these intensive modules, may be given some small weight in some courses – this will ensure attendance and motivation. Otherwise, this program has no effect on our regular teaching and regulations.

It is envisaged that this 3-day program will be run mostly by senior BTech / MTech students (or graduated students who are planning to join their jobs in Sept), coordinated by some PhD student, and under the overall supervision of the faculty (this is how we did the Java course this semester, and that is how the C module is being run). As our regular courses start generally from Mon, these 3 days will normally be Wed-Fri – allowing some small projects to be given to students for the weekend to further sharpen their skills.

Besides improving the proficiency of students in these tools/technologies and improving the teaching and learning in the course(s) that use them, the program should also help in ramping up in courses at start of the semester, as the intensive program can also help students get in academic and learning mindset.

If semester is to be started 3 days earlier, we should have a plan on using these days for students of all standing. A tentative plan for using these days for students entering different semesters in their program given below:

|              | <b>CSE students</b>        | <b>ECE students</b>        |
|--------------|----------------------------|----------------------------|
| <b>Sem 1</b> | Preparation for IP         | Preparation for IP         |
| <b>Sem 2</b> | C programming              | C programming              |
| <b>Sem 3</b> | Java Programming           | Java Programming/ Math Lab |
| <b>Sem 4</b> | Advanced C /C++            | Spice                      |
| <b>Sem 5</b> | Java script, Ruby on rails | Cadence tool               |
| <b>Sem 6</b> | ML, Advanced Java, ??      | Advanced Mathlab /Java???? |

**Note:** ECE students can benefit from both Java and MathLab. In 3<sup>rd</sup> sem, in the 3 days they can do MathLab and do Java programming later (Sem 6);. Or they can do Java in these 3 days, and can do Mathlab during the first two Saturdays. Or ....

- **Sem 7, 8:** Some of the 4<sup>th</sup> year students will help in conducting the programs above for Sem 1 to Sem 6. For other students, students can be encouraged to conduct intensive tutorials on special topics, perhaps to help them in placements. Also, those students who are UG TAs, can use this time to prepare for their courses.
- **MTech students (Sem 1 to Sem 4):** For MTech students also these programs can be used – they can take any of the above programs. For MTech students these 3 days can also be used for intensive preparation in the subject in which they will be the TA (under the guidance of the instructor.)
- **PhD Students:** In the Monsoon semester these days are used for their yearly review. As they don't do courses besides their first few semesters, we don't have to worry about "keeping them busy" in these days.